

Digital Room Thermostat



User Guide PBDIG & PBDIG RF

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OVERVIEW

The Digital Room Thermostat Range (PBDIG & PBDIG RF) can provide temperature control for areas of up to 40m².

Both units are compatible with the Remote (wet room) sensor PB23020 and should be installed 1.2m above floor level and away from any direct heat sources. Wiring Details are provided in the additional installer documentation.

The PBPR and PBPR RF units are designed to be used in conjunction with our range of hardwired and wireless Master Wiring Centres and Slave Units. Depending on the application, additional RF receivers (PB REC RF) may required. Details on how to initiate communication with the receiver units in RF applications are provided in the additional RF documentation.

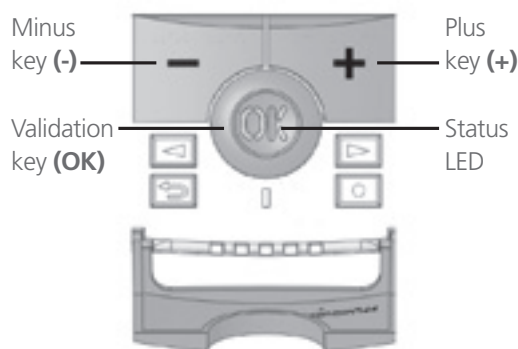
This user guide provides user settings and Programming details, these and the advanced settings can also be downloaded from www.ufch.com in A4 format.



1 Battery Access & User Controls



1.1 Keyboard



- Navigation key left (◀)
- Navigation key right (▶)
- Escape key (↶)
- Program key (●)

1.2 Display & LED

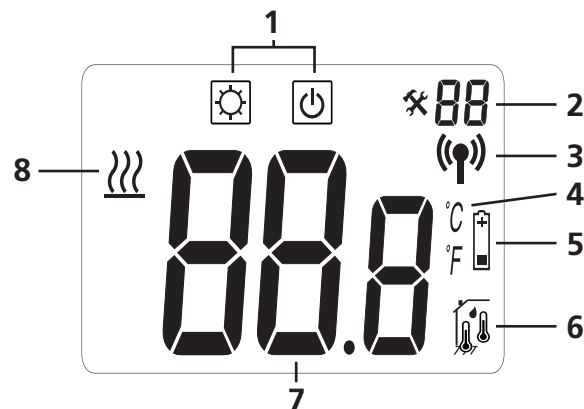


Red on: Heating demand
Green flash: Attention
Red flash: Error (batteries, sensor...)

2 First Time Installation

Open the two side covers and Insert the 2 AAA Alkaline supplied batteries (or remove the small protection tab if the batteries are already installed in the compartment). The unit will display the main icon screen and software version number. Press and hold the right navigational arrow button (▶) to display the opening screen.

Then using the left navigational button (◀) move the cursor over the and press (OK) to display the pre-set required room temperature. After few seconds the display will revert to showing the actual room temperature that is currently being measured.



1. Operating menu (active mode is framed)
2. Installer menu program number or parameter
3. RF Communication
4. °C or °F indicator
5. Low batteries indicator
6. Type of sensor used and temperature displayed
7. Temperature indication
8. Heating demand indication

2.1 RF Initiation

On RF installations the unit must first be paired to the corresponding RF Receiver. To do this set the receiver to pairing mode (see receiver installation guide). Access the hidden User Menu by following the steps as shown in the Hidden Menu section of this guide. The display should now show menu 00 and the code rf INI. Wait until the receiver acknowledges the signal. The transmitter and receiver are now paired.

3 Setting The Room Temperature

With the symbol being displayed press the Plus Key (+) to show the current pre-set room temperature. With this display flashing press and hold the (+) or (-) buttons until the required room temperature is displayed. Then press the (OK) button to save this value in the internal memory.

3.1 Overriding The Room Temperature

At any time the current temperature setting can be increased or decreased by simply pressing either the (+) or (-) buttons.

4 Turning the Thermostat Off

In order to turn off the thermostat use the navigational arrow (►) to move the cursor over the **(Off)**  symbol. The display will show the current default frost protection setting and then switch off.

Note: Whilst in the **(Off)** mode; if the room drops to the pre-set frost temperature value the thermostat will automatically switch on and maintain the temperature at the value as entered (default setting 10.0 degC).

To adjust the frost protection default setting please see the section headed **User Menu**.

5 Remote Sensor Connection

The connection of the Remote sensor allows adjacent wet rooms to be controlled from a thermostat positioned outside the room.

However the sensor can also be used to control floor surface temperatures where sensitive floor coverings are installed.

In the installer settings menu the sensor options are referred to as follows.

Air = Measures room temperature

SEN = Remote Sensor (used to measure air temperature)

FLr = Room temperature with floor regulation (both room thermostat and remote sensor used) **NOTE:** This function is only displayed when a Floor Low (menu 26) and a Floor High (menu 27) value is entered.

To access this menu set to the unit to the **Off** mode  then hold down the Escape key (↵) for 10 seconds.

You will then access the hidden installer menu.

The unit will display menu 23 **rEGU Air**.

Press **(OK)** to toggle between the options with the **(-)** and **(+)** Keys and verify with OK.

If you want to choose the **Flr** setting use the navigation keys to reach menu 26 **(FL:L)** and set the floor low value. Then scroll to menu 27 **(FL:H)** and set the floor high value.

To exit the installer menu scroll to menu 35 **(End)** and press **(OK)**.

6 Hidden Menus

There are 2 hidden menus which can be accessed by pressing and holding a combination of buttons.

The user menu can be used to set a number of user preferences such as a 12 hour or 24 hour clock display, temperature readings in either degC or degF, etc and the installer menu can be used to adjust various operational settings of the unit.

To access the User menu set the unit to the  setting and press and hold the **(●)** button for 10 seconds.

To access the installer menu set the unit to the  mode and press and hold the **(↵)** button for 10 seconds.

PBDIG & PBDIG RF User Menu

Menu No	Display	Description	Default	Option
00 (Available on RF Versions only)	INI	Initiates RF Connection		Refer to RF Installer Leaflet
01	dEG	Temperature Display	Deg C	Deg F
04	no	Calibration of temp reading	no	Adjustment with + or – button (This function is not possible for first 24 hours of operation)
05 (only with sensor fitted)	SEnC	Calibration of sensor temp reading	no	Adjustment with + or – button (This function is not possible for first 24 hours of operation)
06	HG	Holiday mode frost setting	10.0C	0.05C to 10.0C
08	CLr	Restore factory Default settings		Press OK
09	UErS 202	Software Version		None
10	End	Return to main Screen		Press OK

PBDIG & PRPDIG RF Installer Menu

Menu No	Display	Description	Default	Option
23	rEGU Air See section 4	Measures Room Temp	Air	Sen Or Flr
24	Air t	Air Temp Reading		None
25	SEN t	Remote Sensor Temp Reading (only operative if remote sensor is used)		None (Note: If Err display shows check sensor connection)
26	FL:Lo	Low floor temp limit	no	Enter required low temp setting
27	FL:Hi	High floor temp limit	no	Enter required high temp setting
28	type	Operating Mode	HYS	reG (proportional banding)
34	CLr EEP	Restore factory Default settings		Press OK
35	End	Return to main screen		Press OK

7 Technical Specification

Measured Temperature Precision:	0.1°C
Environmental Operating Temperature: Shipping and Storage Temperature:	0°C - 40°C -10°C to +50°C
Setting Temperature Range Comfort, Reduced: Anti freeze/OFF: Holiday: Timer:	5°C to 35°C by 0.5°C step 7°C 0.5°C to 20°C 5°C to 35°C
Regulation Characteristics:	Hysteresis of 0.5°C
Electrical Protection:	Class II - IP30
Power Supply: Operating Life:	2 AAA LR03 1.5V Alkaline 2 Years
Output:	2 Points Contact (Free Contact) Relay 5 Amps 250Vac
Optional External Sensor:	10k ohms at 25°C

8 Fault Diagnostics

My thermostat doesn't start	
Battery Problem	- Check if the protection sticker on the batteries is removed. - Check the orientation of the batteries. - Check the charge of the batteries.
My thermostat LED, blinks in red	
Problem on Sensors	 The logo blinks (ambient sensor) - Contact your installer.  The logo blinks (floor sensor). - Check the connection of the sensor. - Disconnect the sensor, and check it with an ohmmeter (the value must be around 10kohms).
Battery level is low	 The logo blinks (batteries) - Replace the batteries.
My thermostat seems work correctly but the temperature in the room was never in accordance with the program	
Program	- Check the clock. - Check the difference between Comfort and Setback temperature is not too high? - Contact your installer, to check and adjust the calibration.

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